I CLAIM:

1. A construction panel for applying a simulated rock facade to a structure, comprising:

a settable material having an exterior face formed to a desired appearance, and

a mesh permeable to the settable material, embedded in the settable material,

whereby the mesh integrates a plurality of simulated rock faces, and a plurality of panels can be installed in contiguous abutting relation to simulate a rock wall.

2. The construction panel of claim 1 in which the mesh is flexible.

3. The construction panel of claim 1 in which the rock faces and mesh are anchored to a backing board.

4. The construction panel of claim 3 in which backing board comprises a foam insulation board.

5. The construction panel of claim 3 in which the backing board comprises holes generally aligned with the simulated rock faces.

6. The construction panel of claim 1 in which the settable material forms grout lines between simulated rock faces.

7. The construction panel of claim 1 in which each panel has complementary top and bottom edges, each of said edges comprising a repeating profile whereby a plurality of panels can be installed in contiguous abutting relation with either an entire top edge of one panel abutting an entire bottom edge of an adjacent panel or a portion of a top edge of one panel abutting a portion of a bottom edge of another panel.

8. The construction panel of claim 7 wherein the repeating profile is a periodic curve that is preserved by the transformation comprising an inversion operation and a phase shift equal to half the length of the repeating profile.

9. The construction panel of claim 8 wherein each panel has complementary side edges, each of said side edges comprising the repeating profile whereby a plurality of panels can be installed in contiguous abutting relation with a portion of a top, bottom or side edge of one panel abutting a portion of a top, bottom, or side edge of another panel.

10. The construction panel of claim 7 wherein the panel comprises a cutting profile complementary to the top or bottom edge of the panel and comprising the repeating profile, such that the panel may be cut along the cutting profile to produce a panel with a new top or bottom edge that can be installed in contiguous abutting relation with an adjacent panel, with at least a portion of either the new top or bottom edge of said panel abutting at least a portion of a bottom or top edge of the adjacent panel.

11. The construction panel of claim 9 wherein the panel comprises a cutting profile complementary to the top, bottom, or side edge of the panel and comprising the repeating profile, such that the panel may be cut along the cutting profile to produce a panel with a new top, bottom, or side edge that can be installed in contiguous abutting relation with an adjacent panel, with at least a portion of the new top, bottom, or side edge of said panel abutting at least a portion of a top, bottom, or side edge of the adjacent panel.

12. The construction panel of claim 7 in which each panel has side edges each having a profile corresponding to at least a portion of the repeating profile of one of the top or bottom edges whereby a plurality of panels can be installed in contiguous abutting relation with a side edge of one panel abutting a portion of top or bottom edge of another panel

13. The construction panel of claim 12 in which the settable material forms a half grout line around a periphery of the panel.

14. A kit of parts for constructing a rock façade comprising a plurality of construction panels of claim 1 and one or more accessory panels having at least one flat edge for finishing an edge of the rock façade.

15. A method of casting a construction panel, comprising the steps of:

a. providing a mold with a bottom comprising a negative profile of a natural rock façade;

b. suspending a masonry permeable mesh spaced from the bottom of the mold; and

c. pouring a settable material into the mold to at least a level of the mesh;

whereby the settable compound sets in the negative rock façade profile to create a plurality of simulated rock faces and simultaneously embeds the mesh in each simulated rock face to integrate the panel.

16. The method of claim 15 further comprising, before step c., the step of laying over the mesh a backing board having holes, and wherein step c. comprises pouring a settable material into the mold to at least a level of the backing board.

17. A method of casting a construction panel, comprising the steps of:

a. laying a mesh over a bottom of a mold;

b. pouring a settable material into the mold to above a level of the mesh; and

c. before the material sets, pressing or stamping a rock facade pattern into the settable material to create the simulated rock façade pattern.

18. The method of claim 17 further comprising, before step a., the step of laying over the bottom of the mold a backing board having holes, and wherein step a. comprises laying the mesh over the backing board.